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9 UNITED STATES DISTRICT COURT  
10 NORTHERN DISTRICT OF CALIFORNIA  
11 OAKLAND DIVISION

13 IMPINJ, INC.,

14 Plaintiff,

15 v.

16 NXP USA, INC.,

17 Defendant.

Case No. 4:19-CV-03161-YGR

**NXP USA, INC.'S OPPOSITION TO  
PLAINTIFF IMPINJ, INC.'S  
RETRIAL MOTION *IN LIMINE***

Trial Date: March 18, 2024  
Location: Courtroom 1, 4th Floor  
Judge: Yvonne Gonzalez Rogers

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**I. OPPOSITION TO IMPINJ'S MOTION IN LIMINE NO. 1**

Impinj wrongly seeks to preclude NXP from offering testimony and evidence relating to NXP's HITAG product and its integral relationship to the development of the large pads now utilized by NXP's accused UCODE 8 and UCODE 9 products. HITAG is directly responsive to arguments that Impinj has stated it will make at trial regarding the invalidity of the '302 patent.

NXP's history of developing large pads, including those used with HITAG, is highly probative of the knowledge of a POSITA. It is also direct rebuttal to Impinj's planned testimony concerning secondary considerations of non-obviousness. For example, NXP's independent large pad/HITAG development evidence directly rebuts the copying narrative Impinj has stated it will pursue.<sup>1</sup> Beyond secondary considerations, Impinj intends to bring one or more non-inventor fact witnesses to provide "context"—that is, to tell the "invention story" of the '302 patent, including the problems the inventor sought to solve, and the alleged improvements made by the invention. In response, NXP must be allowed to tell its own development story, including explaining the then-available know-how and the problems NXP sought to solve when it developed pads of varying shapes for varying products.

Impinj's false copying narrative is only one of the "contextual" testimony lines Impinj intends to pursue to impugn NXP before the jury. Impinj intends to affirmatively reference the Court's prior '302 patent infringement finding and to paint itself as a small actor compared to NXP. If Impinj is allowed to present any purported "context" to the jury, so too must the jury be provided with the "context" of NXP's independent development of the large pads and the knowledge and ability of a POSITA based on, *inter alia*, the HITAG pads.<sup>2</sup>

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<sup>1</sup> NXP has filed a Motion *in Limine* seeking to preclude Impinj from arguing "copying" as a secondary consideration for various reasons. (Dkt. 498, NXP's Motion *in Limine* No. 1.) Should the Court allow Impinj to present any such evidence or argument, it would be manifestly unfair to prevent NXP from proffering evidence relating to HITAG.

<sup>2</sup> This trial presents a narrow issue that could be efficiently presented to the jury based solely on expert testimony. However, Impinj has indicated that it seeks to call fact witnesses, both live and by deposition, to belabor "secondary considerations" points, which in turn requires NXP to call additional fact witnesses and play additional deposition testimony to rebut Impinj's evidence. NXP submits that the use of fact witnesses on this narrow issue will only create a sideshow. Regardless, it would be unfairly prejudicial to NXP to allow Impinj to put on evidence of "copying," commercial success (incorrectly attributed to Impinj's invention rather than

1           **A.     Background: HITAG And NXP’s Independent Development**

2           There are three primary frequency bands across which RFID chips operate: low frequency  
3 (LF), high frequency (HF), and ultra-high frequency (UHF). Impinj’s portfolio of products is  
4 limited to RFID chips that operate in the UHF range. The ’302 patent contains no limitation as to  
5 frequency band. NXP has successfully marketed RFID chips in all three ranges and developed  
6 versions of these products with large pads prior to the filing of Impinj’s ’302 patent. In fact, the  
7 process that deposits either bumps or large pads on the fabricated chips does not differ between LF,  
8 HF, and UHF; it is performed by the same vendors, and the products are delivered to many of the  
9 same customers for use in the same or similar assembly processes. (Ex. M<sup>3</sup> (7/12/2023 Trial Tr.)  
10 at 971:22-972:6; 983:19-24; 988:9-989:1.) For example, Dr. Zenz testified that the “flip-chip”  
11 inlay assembly process is performed the same way, regardless of the frequency band of the chip.  
12 (*Id.* at 971:22-972:6; 983:19-24.) NXP had significant know-how applicable to RFID chip  
13 processing (including bumps and pads) across all three frequency ranges.

14           In the LF space, NXP marketed the HITAG  $\mu$  chip, which had large octagonal antenna  
15 contacts, which were called “mega bumps.” (Ex. N (7/11/2023 Trial Tr.) at 916:8-11; 917:12-14;  
16 919:12-920:13; Trial Ex. 160 at 4.) In the HF space, NXP worked with the Fraunhofer Research  
17 Institute in 2004 to develop an HF product with large pads of multiple shapes (Ex. N at 913:9-17),  
18 and in 2008 and 2012, NXP began selling multiple HF products with large pads. (Ex. M at 968:2-  
19 15.) Finally, in the UHF space, in 2008-2009 NXP worked with a customer, AT&S, to develop a  
20 version of an earlier UHF product (Gen2) with large pads. (Ex. N at 910:3-12.) Around 2015,  
21 NXP began work with another customer, Tagueos, to develop a version of UCODE 7 with large  
22 pads. The large-pad design of that Gen2 product designed for AT&S served as the starting point  
23 for the UCODE 7 project. (*Id.* at 911:4-23.) Like the octagonal HITAG pads, these UHF-specific  
24 pads were referred to in NXP’s development documentation as “mega bumps.” (Ex. M at 963:5-

25 \_\_\_\_\_  
26 application of NXP’s own HITAG technology), long felt but unsolved need, or any other  
27 secondary considerations that Impinj argues support a finding of non-obviousness without giving  
28 NXP the opportunity to rebut that evidence.

<sup>3</sup> Exhibits referenced herein are attached to the Declaration of T. Kaitlin Crowder, filed concurrently herewith.

1 965:12; 965:14-967:1; Trial Exs. 522, 1214.) As Dr. Zenz explained, the shape of the Gen2 design  
 2 was modified to increase rotation tolerance to meet Tageos’s specification—not to solve the  
 3 problem Impinj claimed to have solved with the ’302 patent. (Ex. N at 912:13-913:7.) As Dr. Zenz  
 4 also explained, that large-pad design was more widely incorporated into NXP’s next generation of  
 5 products so that inlay manufacturers dual-sourcing from NXP and Impinj could use the same  
 6 manufacturing process to mount the ICs to the antennas—a matter of convenience, as Impinj’s new  
 7 testing procedures no longer permitted Impinj to offer a bumped product. (*Id.* at 914:20-916:2.)

### 8 **B. HITAG Is Relevant To Invalidity**

9 The mega-bumps implemented in HITAG is probative both as to the knowledge of a  
 10 POSITA and to rebut evidence of secondary considerations of non-obviousness Impinj intends to  
 11 introduce. *See Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 883 (Fed.  
 12 Cir. 1998) (affirming “relevance of contemporaneous independent invention to the level of ordinary  
 13 knowledge or skill in the art” and “that this evidence is relevant as a secondary consideration”  
 14 (citations omitted)); *see also Ecolchem, Inc. v. Southern Cal. Edison Co.*, 227 F.3d 1361, 1379  
 15 (Fed. Cir. 2000) (“The issue of simultaneous invention is directly tied to the level of knowledge  
 16 attributable to one of ordinary skill in the art.”) (finding near-simultaneous invention to be “strong  
 17 evidence of what constitutes the level of ordinary skill in the art.”) (citation omitted). “Unlike the  
 18 ultimate determination of obviousness, which requires courts to answer the hypothetical question  
 19 of whether an invention ‘would have been obvious,’ 35 U.S.C. § 103, simultaneous invention  
 20 demonstrates what others in the field actually accomplished.” *Trustees of Columbia Univ. in City*  
 21 *of N.Y. v. Illumina, Inc.*, 620 F. App’x. 916, 930 (Fed. Cir. 2015). HITAG is evidence of what NXP  
 22 actually accomplished and therefore relevant to what a POSITA would have been able to do given  
 23 known solutions in the field, among other secondary considerations.<sup>4</sup>

24 Moreover, NXP’s development work on large pads, of which HITAG is a major part, is  
 25 critical to rebutting Impinj’s allegations of copying and other secondary considerations. *See*,

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27  
 28 <sup>4</sup> Neither party’s expert has taken the position that a POSITA’s presumed knowledge is limited to ultra-high frequency RFID.

1 *Friskit, Inc. v. Real Networks, Inc.*, 306 F. App'x. 610, 617 (Fed. Cir. 2009) (“Copying by the  
 2 accused infringer, however, has limited probative value in the absence of evidence of failed  
 3 development efforts by the infringer...”); *see also B.F. Goodrich Co. v. Aircraft Braking Sys.*  
 4 *Corp.*, 72 F.3d 1577, 1583 (Fed. Cir. 1996) (“Copying by others was not found to be compelling  
 5 because there was no extensive development by competitors, and a noninfringing substitute was  
 6 easily designed.”).

7 **C. HITAG Need Not Be Admissible As “Prior Art” To Be Admissible Generally**

8 NXP acknowledges that the Court denied NXP leave to assert HITAG as anticipatory prior  
 9 art. Nevertheless, HITAG still has significant probative value in this trial.<sup>5</sup> “[E]ven if the  
 10 references at issue do not constitute prior art that is admissible for purposes of invalidating [the  
 11 asserted] patent pursuant to § 102 and § 103, the references are nonetheless admissible for purposes  
 12 of demonstrating the ordinary skill in the art with respect to obviousness, and as evidence going to  
 13 secondary considerations of obviousness.” *Medtronic Vascular Inc. v. Abbott Cardiovascular Sys.,*  
 14 *Inc.*, 614 F. Supp. 2d 1006, 1028-29 (N.D. Cal. 2009) (finding that earlier development work that  
 15 was ineligible “prior art” because it was “abandoned, suppressed, or concealed” nevertheless  
 16 admissible for other purposes). Impinj’s argument on this point is therefore irrelevant.

17 Impinj wrongly implies that NXP’s only prior, or valid, purpose for introducing evidence  
 18 relating HITAG in the last trial was to establish HITAG as a non-infringing alternative. While it is  
 19 true that the shape of HITAG must be a non-infringing alternative, given that it predates the ’302  
 20 patent by several years, NXP also elicited testimony of its own independent development of large  
 21 pads for use in the accused products, which included evidence of the HITAG “mega bumps.” (Ex.  
 22 N at 909-924; Ex. M at 958-969.) Moreover, ease of design-around (*e.g.*, non-infringing  
 23 alternatives, like the HITAG pads) undermines other secondary considerations of non-obviousness,  
 24 such as of copying. *B.F. Goodrich*, 72 F.3d at 1583 (“Copying by others was not found to be  
 25 compelling because ... a noninfringing substitute was easily designed.”).

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26  
 27 <sup>5</sup> Impinj’s Motion focuses heavily on an assertion that NXP intends to present the HITAG  
 28 product as anticipatory prior art at trial. NXP does not intend to violate any Court order, and the  
 jury will not be instructed to consider whether HITAG anticipates the ’302 patent.

1 The jury is entitled to hear evidence about the state of the art and NXP's development work.  
 2 That HITAG predates Impinj's patents and happens to disclose all of the claim limitations does not  
 3 unfairly prejudice Impinj. In contrast, exclusion of HITAG would unfairly prejudice NXP.

4 **D. Impinj's Motion in Limine Raises Questions For the Jury**

5 Impinj's own motion demonstrates that Impinj's dispute is with the weight to be afforded  
 6 NXP's development work, including HITAG, and not a matter of admissibility. A significant  
 7 portion of Impinj's motion is devoted to arguing its copying case to the Court, citing evidence that  
 8 it believes supports its case. (Impinj Mot. at 2-3.) These are exactly the jury arguments that Impinj  
 9 will make and which are rebutted by NXP's independent development testimony.

10 The evidence Impinj cherry-picks is not "undisputed." For example, Impinj relies heavily  
 11 on a particular statement from an NXP document as evidence of non-obviousness: that "Impinj  
 12 introduced with their 'Enduro Technology' (2 big copper pads) a complete new concept into the  
 13 UHF market...." (Impinj Mot. at 3.) But NXP's witness, Dr. Christian Zenz—the person who is  
 14 actually responsible for the development and modification of the bumps and pads for NXP's RFID  
 15 products—testified unequivocally that he did not agree with that statement. (Ex. M at 977:5-10;  
 16 980:7-22; 982:21-984:6.). And his testimony explains why—at length. (Ex. N at 909-924; Ex. M  
 17 at 958-969.) Impinj seeks to raise specific inferences from Dr. Zenz's testimony (as well as  
 18 inferences about NXP's state of mind based on *Impinj's witnesses'* testimony), but those inferences  
 19 and the credit to be afforded to any witness's testimony belong to the jury, not the Court. Impinj  
 20 argues that NXP did not simply transplant the HITAG mega bumps to the UCODE products, but  
 21 how NXP got from "Point A" to "Point B," which is evidenced by NXP testimony, is for the jury  
 22 to determine. Impinj argues over the difference between an LF pad for wire bonding and a UHF  
 23 pad for flip-chip assembly, but Dr. Zenz testified that the process of adding contacts to each is the  
 24 same. (Ex. M at 971:22-972:6; 983:19-24; 984:16-985:18.) All of this evidence is for the jury to  
 25 weigh and decide. Whether NXP's products are the result of independent development and NXP's  
 26 know-how directly rebuts the very arguments Impinj now makes to the Court, and will later make  
 27 to the jury. It would be unfairly prejudicial to NXP to exclude this highly probative evidence.

28 NXP respectfully requests that the Court deny Impinj's Motion in Limine.



Dated: January 24, 2024

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